



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,429	10/07/2003	Ramachandra S. Hosmane	46481	3460
20736	7590	07/22/2005	EXAMINER	
MANELLI DENISON & SELTER 2000 M STREET NW SUITE 700 WASHINGTON, DC 20036-3307			KHARE, DEVESH	
			ART UNIT	PAPER NUMBER
			1623	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,429

Applicant(s)

HOSMANE ET AL.

Examiner

Devesh Khare

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/13/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

5.0.0

Art Unit: 1623

Applicant's remarks filed on 05/13/2005 are acknowledged. Claims 1-23 and 70-77 have been cancelled by the Preliminary amendment dated 10/07/2003.

The examiner withdraws the rejection of claims 24-69 under judicially created doctrine of obviousness-type double patenting over claims 1-31 of U.S. Patent No. 6,677,310 ('310) in response to applicant's remarks that the '310 patent does not disclose the presently claimed structures represented by Formula II which are puckered and non-aromatic.

Claims 24-69 are currently pending in this application.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 24-69 rejected under 35 U.S.C. 102(e) as being anticipated by Hosmane et al. (U.S. Patent No. 5,843,912) ('912) of record.

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

Art Unit: 1623

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The applicants' claims are directed toward a method of treating a viral, bacterial, fungal or parasitic infection, inhibiting the growth of cancer, inhibiting enzymatic activity of RNA polymerases, inhibiting enzymatic activity of adenosine deaminase and/or guanine deaminase in a patient or vertebrate animal by administering to a patient or vertebrate animal at least one of compounds comprising non-planar, non-aromatic, ring-expanded heterocyclic bases, nucleosides and nucleotides compounds having the Formulas II-IV (claims 24,34,39,43,47,57,62 and 66).

Hosmane et al. reference is encompassed by the applicants' claims wherein non-planar, non-aromatic, ring-expanded heterocyclic bases, nucleosides and nucleotides compounds having the Formulas II, III and IV (col. 4, lines 20-25) can be administered to inhibit enzymes of purine metabolism to treat a viral, bacterial, fungal or parasitic infection, inhibiting the growth of cancer, inhibiting enzymatic activity of RNA polymerases, inhibiting enzymatic activity of adenosine deaminase and/or guanine deaminase in a patient or vertebrate animal (col. 15, lines 25-65 and col. 16, lines 5-35).

Response to Arguments

Applicant's arguments filed on 5/13/05 traversing the rejections of claims 24-69 over Hosmane et al. (U.S. Patent No. 5,843,912) ('912) under 35 U.S.C. 102(e) have been fully considered but they are not persuasive.

Applicants argue, "while the '912 patent discloses the compounds of Formulas II, III and IV that are employed in the presently claimed methods of treatment, the presently claimed methods recited features and are supported by investigations and experiments performed after the '912 patent was filed."

The '912 patent discloses the non-planar, non-aromatic, ring-expanded heterocyclic bases, nucleosides and nucleotides compounds having the Formulas II, III and IV (col. 4, lines 20-25) which can be administered to inhibit enzymes of purine metabolism to treat a viral, bacterial, fungal or parasitic infection, inhibiting the growth of cancer, inhibiting enzymatic activity of RNA polymerases, inhibiting enzymatic activity of adenosine deaminase and/or guanine deaminase in a patient or vertebrate animal (col. 15, lines 25-65 and col. 16, lines 5-35). In the instant method of treating a viral, bacterial, fungal or parasitic infection, inhibiting the growth of cancer, inhibiting enzymatic activity of RNA polymerases, inhibiting enzymatic activity of adenosine deaminase and/or guanine deaminase in a patient or vertebrate animal by administering to a patient or vertebrate animal at least one of compounds comprising non-planar, non-aromatic, ring-expanded heterocyclic bases, nucleosides and nucleotides compounds having the Formulas II-IV (claims 24, 34, 39, 43, 47, 57, 62 and 66), would be considered an inherent property of structures represented by the Formulas II, III and IV (col. 4, lines 20-25) of the '912 patent which can be administered to inhibit enzymes of purine metabolism to treat a viral, bacterial, fungal or parasitic infection, inhibiting the growth of cancer, inhibiting enzymatic activity of RNA polymerases, inhibiting enzymatic activity of adenosine deaminase and/or guanine deaminase in a patient or vertebrate animal.

Art Unit: 1623

2. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Devesh Khare whose telephone number is (571)272-0653. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at (571)272-0661. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D., J.D.
Art Unit 1623
July 8, 2005



JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600